REPORT DOCUMENTATION PAGE

Form Approved OMB No. 0704-0188

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing this collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports (0704-0188), 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. PLEASE DO NOT RETURN YOUR FORM TO THE ABOVE ADDRESS.

1. REPORT DATE (DD-MM-YYYY) Sep 2009	2. REPORT TYPE	3. DATES COVERED (From - To)
4. TITLE AND SUBTITLE	5a. CONTRACT NUMBER	
Exploiting Commercial Games and T (Exploitation des jeux et des technology)		
8ème atelier)		
		5c. PROGRAM ELEMENT NUMBER
6. AUTHOR(S)	5d. PROJECT NUMBER	
		5e. TASK NUMBER
		5f. WORK UNIT NUMBER
7. PERFORMING ORGANIZATION NAME(S	8. PERFORMING ORGANIZATION REPORT NUMBER	
Research and Technology Organisat	NOMBER	
BP 25, F-92201 Neuilly-sur-Seine Ce		
9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES)		10. SPONSOR/MONITOR'S ACRONYM(S)
		11. SPONSOR/MONITOR'S REPORT
		NUMBER(S)
		RTO-MP-MSG-078

12. DISTRIBUTION / AVAILABILITY STATEMENT

DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.

13. SUPPLEMENTARY NOTES

Supporting documents are attached to the report as separate files (MS Word, HTM)

14. ABSTRACT

The aim of the workshop was to explore through demonstrations and presentations the "hard questions" related to exploiting commercial games and technology in NATO. The objective of the workshop was to provide an opportunity for the Nations working the application of commercial technologies to provide a brief update on their ongoing efforts and to provide capability briefings on the state of commercial technologies with immediate potential to provide value add across one or more of the ACT's M&S Vision document application areas (defence planning, training, operations, capabilities development, and in particular SNOW LEOPARD). The objective was also to provide a common multi-national scenario for companies and organizations to participate in a distributed simulation plug-up, to provide a means for participation via teleconferencing or some other means for those not able to attend in person, and to allow ACT senior staff to observe and participate in the demonstrations.

15. SUBJECT TERMS

16. SECURITY CLASSIFICATION OF:		17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON	
a. REPORT	b. ABSTRACT	c. THIS PAGE			19b. TELEPHONE NUMBER (include area
U	U	U	SAR	19	code)

NORTH ATLANTIC TREATY ORGANISATION

RESEARCH AND TECHNOLOGY ORGANISATION





AC/323(MSG-078)TP/309

www.rto.nato.int

RTO MEETING PROCEEDINGS

MP-MSG-078

Exploiting Commercial Games and Technology for Military Use – 8th Workshop

(Exploitation des jeux et des technologies du commerce pour un usage militaire – 8ème atelier)

Presented at the NATO Modeling and Simulation Group (NMSG) Workshop held at the Virginia Modeling, Analysis, and Simulation Center, Suffolk, Virginia, U.S.A., 22-24 September 2009.



Published September 2009





The Research and Technology Organisation (RTO) of NATO

RTO is the single focus in NATO for Defence Research and Technology activities. Its mission is to conduct and promote co-operative research and information exchange. The objective is to support the development and effective use of national defence research and technology and to meet the military needs of the Alliance, to maintain a technological lead, and to provide advice to NATO and national decision makers. The RTO performs its mission with the support of an extensive network of national experts. It also ensures effective co-ordination with other NATO bodies involved in R&T activities.

RTO reports both to the Military Committee of NATO and to the Conference of National Armament Directors. It comprises a Research and Technology Board (RTB) as the highest level of national representation and the Research and Technology Agency (RTA), a dedicated staff with its headquarters in Neuilly, near Paris, France. In order to facilitate contacts with the military users and other NATO activities, a small part of the RTA staff is located in NATO Headquarters in Brussels. The Brussels staff also co-ordinates RTO's co-operation with nations in Middle and Eastern Europe, to which RTO attaches particular importance especially as working together in the field of research is one of the more promising areas of co-operation.

The total spectrum of R&T activities is covered by the following 7 bodies:

- AVT Applied Vehicle Technology Panel
- HFM Human Factors and Medicine Panel
- IST Information Systems Technology Panel
- NMSG NATO Modelling and Simulation Group
- SAS System Analysis and Studies Panel
- SCI Systems Concepts and Integration Panel
- SET Sensors and Electronics Technology Panel

These bodies are made up of national representatives as well as generally recognised 'world class' scientists. They also provide a communication link to military users and other NATO bodies. RTO's scientific and technological work is carried out by Technical Teams, created for specific activities and with a specific duration. Such Technical Teams can organise workshops, symposia, field trials, lecture series and training courses. An important function of these Technical Teams is to ensure the continuity of the expert networks.

RTO builds upon earlier co-operation in defence research and technology as set-up under the Advisory Group for Aerospace Research and Development (AGARD) and the Defence Research Group (DRG). AGARD and the DRG share common roots in that they were both established at the initiative of Dr Theodore von Kármán, a leading aerospace scientist, who early on recognised the importance of scientific support for the Allied Armed Forces. RTO is capitalising on these common roots in order to provide the Alliance and the NATO nations with a strong scientific and technological basis that will guarantee a solid base for the future.

The content of this publication has been reproduced directly from material supplied by RTO or the authors.

Published September 2009

Copyright © RTO/NATO 2009 All Rights Reserved

ISBN 978-92-837-0106-4

Single copies of this publication or of a part of it may be made for individual use only. The approval of the RTA Information Management Systems Branch is required for more than one copy to be made or an extract included in another publication another publication. Requests to do so should be sent to the address on the back cover.

ii RTO-MP-MSG-078





Exploiting Commercial Games and Technology for Military Use – 8th Workshop

(RTO-MP-MSG-078)

Executive Summary

The aim of the workshop is to explore through demonstrations and presentations the "hard questions" related to exploiting commercial games and technology in NATO. The objective of the workshop was to provide an opportunity for the Nations working the application of commercial technologies to provide a brief update on their ongoing efforts and to provide capability briefings on the state of commercial technologies with immediate potential to provide value add across one or more of the ACT's M&S Vision document application areas (defence planning, training, operations, capabilities development, and in particular SNOW LEOPARD). The objective was also to provide a common multi-national scenario for companies and organizations to participate in a distributed simulation plug-up, to provide a means for participation via teleconferencing or some other means for those not able to attend in person, and to allow ACT senior staff to observe and participate in the demonstrations.

MSG-078 was conducted 22-24 September 2009 at the Virginia Modelling, Analysis, and Simulation Center in Suffolk, Virginia. The workshop was attended by 68 invited ACT, NATO national representatives, and industry personnel participating in 21 presentations and demonstrations concluding in an open panel discussion of high interest topics. The workshop was distributed via video teleconference and through the Second Life Virtual World for remote participants.

With the aim of the workshop to provide a venue to explore through demonstrations and presentations the "hard questions" related to exploiting commercial games and technology, to provide updates on the nations' current application of commercial technologies, and to provide capability briefings and demonstrations of commercial technologies with immediate potential for use in a distributed manner through VTC, virtual worlds or other means then the workshop was a success. The only objective not met was to conduct a plug-up using a common multi-national scenario. Most of the hard questions, while asked throughout the workshop, were highlighted during the open panel discussion at the end. The open panel discussion was one of the most beneficial portions of the workshop as it provided the mechanism for the participants to begin to shape the "hard questions" into manageable topics for further discussion at future workshops.

It is clear that NATO nations are currently using commercial games and technologies, and based on the remarks from the group, there is a need and a desire to continue to pursue commercial games and technology solutions even given current procurement guidelines. NATO and ACT have the organizational infrastructure to facilitate these types of workshops and should continue them.

RTO-MP-MSG-078 ES - 1





Exploitation des jeux et des technologies du commerce pour un usage militaire – 8ème atelier

(RTO-MP-MSG-078)

Synthèse

Le but de l'atelier était d'explorer à travers des démonstrations et des présentations les "questions délicates" relatives à l'exploitation des jeux et des technologies du commerce dans l'OTAN. L'objectif de l'atelier était de donner aux nations travaillant à l'application des technologies du commerce, l'opportunité de faire un point concis sur leurs travaux en cours et de fournir des informations capacitaires sur l'état des technologies commerciales possédant un potentiel immédiat de valeur ajoutée au travers d'un ou de plusieurs des domaines d'application du document d'ACT, M&S Vision (planification de défense, formation, opérations, développement de capacités, et en particulier SNOW LEOPARD). L'objectif était également de fournir un scénario multinational commun aux sociétés et aux organisations pour les faire participer à une interconnexion distribuée de simulation, de fournir un moyen de participation par l'intermédiaire d'un système de téléconférence ou quelque autre moyen pour ceux qui ne pouvaient pas être présents en personne, et pour permettre aux cadres d'ACT d'observer et de participer aux démonstrations.

Le MSG-078 s'est déroulé du 22 au 24 septembre 2009 au Virginia Modelling, Analysis, and Simulation Center de Suffolk, Virginie. L'atelier a accueilli 68 représentants invités : ACT, représentants nationaux de l'OTAN, et personnels de l'industrie ont participé à 21 présentations et démonstrations se concluant par une table ronde sur les sujets d'intérêt majeur. L'atelier a été diffusé par vidéoconférence et à travers le système Second Life Virtual World pour les participants à distance.

Pour ce qui est du but visé par l'atelier, qui était de créer un rendez-vous pour explorer par des démonstrations et des présentations "les questions délicates" liées à l'exploitation des jeux et des technologies du commerce, de faire un point sur les applications actuelles par les nations des technologies commerciales et de fournir des informations capacitaires et des démonstrations sur les technologies commerciales ayant un potentiel immédiat d'utilisation distribuée par VTC, mondes virtuels ou tout autre moyen, cet atelier a été un succès. Le seul objectif qui n'a pas été atteint était de réaliser une interconnexion en utilisant un scénario multinational commun. La plupart des questions délicates posées pendant toute la durée de l'atelier ont été soulignées pendant la table ronde à la fin de l'atelier. La table ronde a été l'une des parties les plus bénéfiques de l'atelier car elle a fourni aux participants le mécanisme nécessaire à un début de mise en forme des "questions délicates" pour en faire des sujets gérables en vue de futures discussions lors d'ateliers à venir.

Il est clair que les nations de l'OTAN emploient déjà à l'heure actuelle des jeux et des technologies du commerce, et si l'on en croit les remarques du groupe, il existe un besoin et une volonté de continuer à rechercher des solutions fournies par les jeux et les technologies du commerce malgré les directives d'approvisionnement actuel. L'OTAN et ACT disposent de l'infrastructure organisationnelle propre à faciliter ce type d'ateliers et doit les poursuivre.

ES - 2 RTO-MP-MSG-078